

Attorney Docket #10010261-1

Amendments to the Claims

This list of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A surface scanned by an optical sensor of a relative position determinator, for use with a light source, comprising:
 - first regions that reflect light beams from the light source toward the optical sensor, in the form of reflected light beams; and
 - second regions that reflect light from the light source away from the optical sensor, in the form of deflected light beams,
 - wherein only the reflected light beams from the first region form an image used by the relative position determinator to detect change in the position of the optical sensor relative to the surface,
 - wherein the first regions are located indiscriminately amidst the second regions.
2. (original) The surface as in claim 1, wherein the first regions are specular.
3. (original) The surface as in claim 2, wherein the second regions are specular.
4. (original) The surface as in claim 3, wherein the first regions are selected from a group consisting of surfaces containing depressions, surface protrusions, and a combination of surfaces containing depressions and surface protrusions.
5. (original) The surface as in claim 4, wherein the first regions are rotationally symmetric.
6. (original) The surface as in claim 5, wherein the first regions are sized to be detectable by the optical sensor.

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7. (original) The surface as in claim 6, wherein the second regions surround the first regions.

8. (original) The surface as in claim 7, wherein the surface is covered with an optically transparent coating.

Claims 9-12 (Canceled)

13. (Currently amended) A method for determining the position of an optical sensor relative to a surface, wherein the optical sensor is part of a relative position determinator, to be used with a light source that illuminates the surface, comprising the steps of:

shining light from the light source onto the surface;

reflecting light from a first group of regions on the surface toward the optical sensor, in the form of reflected light beams;

reflecting light from a second group of regions on the surface away from the optical sensor, in the form of deflected light beams, wherein the first group of regions are indiscriminately located amidst the second group of regions; and

forming an image with only the reflected light beams from the first group of regions, the image used by the relative position determinator to detect change in the position of the optical sensor relative to the surface.

14. (original) The method of claim 13, wherein the first group of regions is specular.

15. (original) The method of claim 14, wherein the second group of regions is specular.

16. (original) The method of claim 15, wherein the first group of regions is made up of rotationally symmetric elements.

17. (original) The method of claim 16, wherein the surface is covered with an optically transparent coating.

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18. (original) The method of claim 17, wherein the first group of regions is made up of surfaces containing depressions.

19. (original) The method of claim 18, wherein the first group of regions is made up of surfaces containing protrusions.